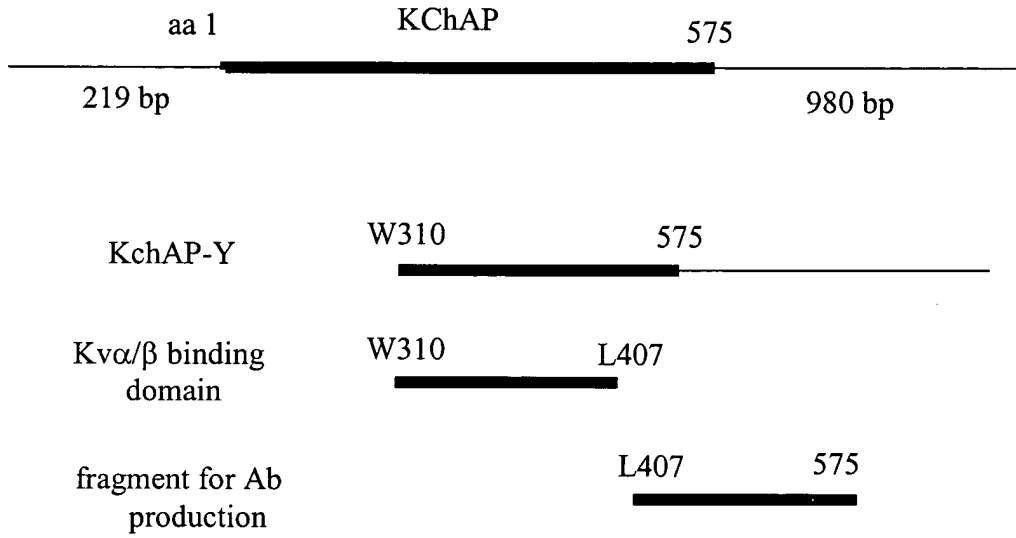


APPROVED	O.G. FIG.	Title:
BY	CLASS	SUBCLASS
DRAFTSMAN		

PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 1



2005074-01300

APPROVED	O.G. F.G.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

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Attorney Docket Number: 222884/04066

Fig. 2A

atgaagatcaaagaactttaccgcagggcgctttccccggaagaccctggggccttccgat  
1 -----+-----+-----+-----+-----+-----+-----+ 60  
M K I K E L Y R R R F P R K T L G R S D -

ctctcttttgcctctctttgccccctggcacctctcctgtaggctccccagcccccttgc  
61 -----+-----+-----+-----+-----+-----+-----+ 120  
L S L L S L P P G T S P V G S P S P L A -

A  
P  
a  
I

tccattcctcccaccctcctgacccttggcaccttgctgggcccctaagcgtgaggtggac  
121 -----+-----+-----+-----+-----+-----+-----+ 180  
S I P P T L L T P G T L L G P K R E V D -

A  
a  
t  
I  
I

atgcaccctcctctgccccagcctgtgcaccctgacgtcaccatgaaaccactgccttc  
181 -----+-----+-----+-----+-----+-----+-----+ 240  
M H P P L P Q P V H P D V T M K P L P F -

E  
a  
g  
I

tacgaagtctacggagagctcatccggccgaccacccttgcgctccacctccagtcagagg  
241 -----+-----+-----+-----+-----+-----+-----+ 300  
Y E V Y G E L I R P T T L A S T S S Q R -

P  
v p  
u s  
I t  
I I

tttgaggaagcccactttacctttgcactcactccccagcagctgcagcagattctcaca  
301 -----+-----+-----+-----+-----+-----+-----+ 360  
F E E H H F T F A L T P Q Q L Q Q I L T -

2025720" 4205200T

APPROVED	Q.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 2B

```

tccagggaggttctgccaggagccaagtgcgattataccatacaagtgcagctcaggttc
361 -----+-----+-----+-----+-----+-----+-----+ 420
S R E V L P G A K C D Y T I Q V Q L R F -

P
v
u
I
I

tgtctctgtgagaccagctgccccaggaggactatttccccctaacctctttgtcaag
421 -----+-----+-----+-----+-----+-----+-----+ 480
C L C E T S C P Q E D Y F P P N L F V K -

B
s
t
E
I
I

gttaatgggaaactctgccccctgccgggttacctccctccaaccaagaatggagctgag
481 -----+-----+-----+-----+-----+-----+-----+ 540
V N G K L C P L P G Y L P P T K N G A E -

S
t
u
I

cccaagaggcctagtcgtccaatcaacatcacaccctggctcgtctctcagccactggtt
541 -----+-----+-----+-----+-----+-----+-----+ 600
P K R P S R P I N I T P L A R L S A T V -

H
P
a
I

cccaacaccatagtggttaactggtcattctgagtttggacggaattactccttgctctgtg
601 -----+-----+-----+-----+-----+-----+-----+ 660
P N T I V V N W S S E F G R N Y S L S V -

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APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

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Fig. 2C

P  
S  
t  
I

B  
S  
a  
W  
I

661    tacctggtgaggcagttgactgcagggaccctgctacaaaagctcagagccaagggtatc    720  
-----+-----+-----+-----+-----+-----+-----+  
Y L V R Q L T A G T L L Q K L R A K G I    -

A  
v  
a  
I

721    cggaatccagaccattcccgagcactgatcaaggagaaattgactgctgaccccgacagt    780  
-----+-----+-----+-----+-----+-----+-----+  
R N P D H S R A L I K E K L T A D P D S    -

781    gaagtggctactacaagtctccgggtgtcactcatgtgcccgctggggaagatgcgcctg    840  
-----+-----+-----+-----+-----+-----+-----+  
E V A T T S L R V S L M C P L G K M R L    -

P  
S  
t  
I

841    actgtcccatgccgcgctctcacctgtgccacctgcagagtttcgatgctgcccctttat    900  
-----+-----+-----+-----+-----+-----+-----+  
T V P C R A L T C A H L Q S F D A A L Y    -

901    ctacagatgaatgagaaaaagccaacatggacgtgcctgtgtgtgacaagaaggctccc    960  
-----+-----+-----+-----+-----+-----+-----+  
L Q M N E K K P T W T C P V C D K K A P    -

961    tatgagtcactgattattgatgggtttattcatggaaattcttaattcctgttcggattgt    1020  
-----+-----+-----+-----+-----+-----+-----+  
Y E S L I I D G L F M E I L N S C S D C    -

P                      B  
f                      a  
l                      m  
M                      H  
I                      I

1021    gatgagatccagttcatggaagatggatcctggtgtccaatgaaaccaagaaggaggca    1080  
-----+-----+-----+-----+-----+-----+-----+  
D E I Q F M E D G S W C P M K P K K E A    -

2007504-021302

APPROVED	O.G. FIG.
BY	CLASS
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Title: PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

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Attorney Docket Number: 222884/04066

Fig. 2D

P  
f  
l  
M  
I

tccgaggtttgccccccaccagggtatgggctggatgggtctccagtatagcccagtcag  
1081-----+-----+-----+-----+-----+-----+ 1140  
S E V C P P P G Y G L D G L Q Y S P V Q -

gagggaaatcagtcagagaataagaagagggttgaagtcattgacttgacaatcgaaagc  
1141-----+-----+-----+-----+-----+-----+ 1200  
E G N Q S E N K K R V E V I D L T I E S -

B  
g  
l  
I  
I

tcatcagatgaggaagatctgccccccaccaagaagcactgccctgttacctcggctgcc  
1201-----+-----+-----+-----+-----+-----+ 1260  
S S D E E D L P P T K K H C P V T S A A -

B  
S  
t  
E  
I  
I

attccagcccttccctggaagcaaaggagccctgacctctgggtcaccagccgtcttcggtg  
1261-----+-----+-----+-----+-----+-----+ 1320  
I P A L P G S K G A L T S G H Q P S S V -

ctgcggagccctgcaatgggtacactgggcagtgatttcctgtctagtctcccactacat  
1321-----+-----+-----+-----+-----+-----+ 1380  
L R S P A M G T L G S D F L S S L P L H -

gagtaccacactgccttcccgcctgggggctgacatccaaggtttagatttattttctttc  
1381-----+-----+-----+-----+-----+-----+ 1440  
E Y P P A F P L G A D I Q G L D L F S F -

cttcagactgagagtcagcactacagcccttcagttatcacttcactagatgagcaggac  
1441-----+-----+-----+-----+-----+-----+ 1500  
L Q T E S Q H Y S P S V I T S L D E Q D -

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APPROVED	O.C. #
BY	CLASS: SUBCLASS
DRAFTSMAN	Title: PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Title: PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.

Attorney Docket Number: 222884/04066

Fig. 2E

P  
f A  
l p  
M a  
I I

acccttggccacttcttccaattccggggaacccctccccacttcctgggccaactggcc  
1501-----+-----+-----+-----+-----+-----+ 1560  
T L G H F F Q F R G T P P H F L G P L A -

cccacattggggagctctcaccgcagcgccactccagcaccgcgtcctggccgtgtcagc  
1561-----+-----+-----+-----+-----+-----+ 1620  
P T L G S S J R S A T P A P A P G R V S -

B  
s  
a  
W  
I

agcattgtggctcctgggagttccttgagggaagggcatggaggaccctgccttccggt  
1621-----+-----+-----+-----+-----+-----+ 1680  
S I V A P G S S L R E G H G G P L P S G -

A  
a  
t  
I  
I

ccctctttgactggctgtcggtcagacgtcatttccttggactga  
1681-----+-----+-----+-----+-----+ 1725  
P S L T G C R S D V I S L D \* -

Enzymes that do cut:

AatII	Apal	AvaI	BamHI	BglII	BsaWI	BstEII	EagI
HpaI	PflMI	PstI	PvuII	StuI			

Enzymes that do not cut:

AgeI	AseI	BbrPI	BfrI	BsaBI	BsmI	BssHII	BstbI
BstXI	ClaI	DraI	DraIII	EcoRI	HindIII	KpnI	MluI
NarI	NcoI	NdeI	NheI	NotI	NruI	NsiI	PmlI
PvuI	SacII	SalI	SauI	Scal	SfiI	SmaI	SnaBI
SpeI	SspI	XbaI	XhoI				

2025074-021302

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 3A

2025074-021307

A  
p  
a  
I

1 atgaagatcaaagagctttaccgacgacgctttccccggaagaccctggggccctctgat 60  
-----+-----+-----+-----+-----+-----+-----+  
M K I K E L Y R R R F P R K T L G P S D -

61 ctctcccttctctctttgccccctggcacctctcctgtaggctcccctggctcctctagct 120  
-----+-----+-----+-----+-----+-----+-----+  
L S L L S L P P G T S P V G S P G P L A -

A  
p  
a  
I

121 cccattcccccaacgctgttgccccctggcacccctgctgggcccccaagcgtgaggtggac 180  
-----+-----+-----+-----+-----+-----+-----+  
P I P P T L L A P G T L L G P K R E V D -

181 atgcacccccctctgccccagcctgtgcaccctgatgtcaccatgaaaccattgccccttc 240  
-----+-----+-----+-----+-----+-----+-----+  
M H P P L P Q P V H P D V T M K P L P F -

241 tatgaagtctatggggagctcatccggcccaccacccttgcatccacttctagccagcgg 300  
-----+-----+-----+-----+-----+-----+-----+  
Y E V Y G E L I R P T T L A S T S S Q R -

301 tttgaggaagcgcactttacctttgccctcacaccccagcaagtgcagcagattcttaca 360  
-----+-----+-----+-----+-----+-----+-----+  
F E E A H F T F A L T P Q Q V Q Q I L T -

361 tccagagaggttctgccaggagccaaatgtgattataccatacaggtgcagctaagggttc 420  
-----+-----+-----+-----+-----+-----+-----+  
S R E V L P G A K C D Y T I Q V Q L R F -

P  
v  
u  
I  
I

421 tgtctctgtgagaccagctgccccaggaagattattttcccccaacctctttgtcaag 480  
-----+-----+-----+-----+-----+-----+-----+  
C L C E T S C P Q E D Y F P P N L F V K -

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN	Title	

PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 3B

B  
s  
t  
E  
I  
I

gttaatgggaaactgtgccccctgccgggttaccttccccaaccaagaatggggccgag  
481 -----+-----+-----+-----+-----+-----+-----+ 540  
V N G K L C P L P G Y L P P T K N G A E -

cccaagaggccagccgccccatcaacatcacacccctggctcgactctcagccactgtt  
541 -----+-----+-----+-----+-----+-----+-----+ 600  
P K R P S R P I N I T P L A R L S A T V -

cccaacaccattgtgggtcaattgggtcatctgagttcggacggaattactccttgtctgtg  
601 -----+-----+-----+-----+-----+-----+-----+ 660  
P N T I V V N W S S E F G R N Y S L S V -

P  
s  
t  
I

B  
s  
a  
W  
I

tacctggtgaggcagttgactgcaggaacccttctacaaaaactcagagcaaagggtatc  
661 -----+-----+-----+-----+-----+-----+-----+ 720  
Y L V R Q L T A G T L L Q K L R A K G I -

cggaaccagaccactcgcgggcactgatcaaggagaaattgactgctgaccctgacagt  
721 -----+-----+-----+-----+-----+-----+-----+ 780  
R N P D H S R A L I K E K L T A D P D S -

gaggtggccactacaagtctccgggtgtcactcatgtgcccgctaggaagatgcgcctg  
781 -----+-----+-----+-----+-----+-----+-----+ 840  
E V A T T S L R V S L M C P L G K M R L -

P  
s  
t  
I

actgtcccttgctgctgccctcacctgtgcccacctgcagagcttcgatgctgccctttat  
841 -----+-----+-----+-----+-----+-----+-----+ 900  
T V P C R A L T C A H L Q S F D A A L Y -

ctacagatgaatgagaagaagcctacatggacatgtcctgtgtgtgacaagaaggctccc  
901 -----+-----+-----+-----+-----+-----+-----+ 960  
L Q M N E K K P T W T C P V C D K K A P -

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APPROVED	O.G. FIG.
BY	CLASS/SUBCLASS
DRAFTSMAN	

PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 3C

tatgaatctcttatcattgatgggtttatattatggagattcttagttcctgttcagattgt  
961-----+-----+-----+-----+-----+-----+-----+ 1020  
Y E S L I I D G L F M E I L S S C S D C -

P B  
f a  
l m  
M H  
I I

gatgagatccaattcatggaagatggatcctgggtgcccgaatgaaaccaagaaggaggca  
1021-----+-----+-----+-----+-----+-----+-----+ 1080  
D E I Q F M E D G S W C P M K P K K E A -

P  
f  
l  
M  
I

tctgaggtttgcccccgccagggtatgggctggatggcctccagtacagcccagtcacg  
1081-----+-----+-----+-----+-----+-----+-----+ 1140  
S E V C P P P G Y G L D G L Q Y S P V Q -

gggggagatccatcagagaataagaagaaggctcgaagttattgacttgacaatagaaagc  
1141-----+-----+-----+-----+-----+-----+-----+ 1200  
G G D P S E N K K K V E V I D L T I E S -

P  
v  
u  
I  
I

tcatcagatgaggaggatctgccccctaccaagaagcactgttctgtcacctcagctgcc  
1201-----+-----+-----+-----+-----+-----+-----+ 1260  
S S D E E D L P P T K K H C S V T S A A -

atcccgccctacctggaagcaaaggagtcctgacatctggccaccagccatcctcggtg  
1261-----+-----+-----+-----+-----+-----+-----+ 1320  
I P A L P G S K G V L T S G H Q P S S V -

ctaaggagccctgctatgggcacgttgggtggggatttcctgtccagtcctccactacat  
1321-----+-----+-----+-----+-----+-----+-----+ 1380  
L R S P A M G T L G G D F L S S L P L H -

gagtaccacactgccttcccactgggagccgacatccaaggtttagatttattttcattt  
1381-----+-----+-----+-----+-----+-----+-----+ 1400  
E Y P P A F P L G A D I Q G L D L F S F -

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2007-05-20

APPROVED	C.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Title: PROTEIN THAT ENHANCES EXPRESSION OF POTASSIUM CHANNELS ON CELL SURFACES AND NUCLEIC ACIDS THAT ENCODE THE SAME

Inventors Name: Brown, et al.  
Attorney Docket Number: 222884/04066

Fig. 3D

cttcagacagagagtcagcactatggccctctgtcatcacctcactagatgaacaggat  
1441-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 1500  
L Q T E S Q H Y G P S V I T S L D E Q D -

gccttggccacttcttccagtagccgagggaccccttctcactttctgggcccactggcc  
1501-----+-----+-----+-----+-----+-----+-----+-----+-----+ 1560  
A L G H F F Q Y R G T P S H F L G P L A -

cccacgctggggagctccactgcagcgccactccggcgccccctcctggccgtgtcagc  
1561-----+-----+-----+-----+-----+-----+-----+-----+-----+ 1620  
P T L G S S H C S A T P A P P P G R V S -

agcattgtggccctgggggggccttgagggaggggcatggaggacccctgccctcaggt  
1621-----+-----+-----+-----+-----+-----+-----+-----+-----+ 1680  
S I V A P G G A L R E G H G G P L P S G -

ccctctttgactggctgtcggtcagacatcatttccttgactga  
1681-----+-----+-----+-----+-----+-----+-----+-----+-----+ 1725  
P S L T G C R S D I I S L D \* -

A  
p  
a  
I  
  
P  
s  
t  
I  
  
N  
a  
r  
I  
  
S  
a  
u  
I

Enzymes that do cut:

ApaI	BamHI	BsaWI	BstEII	NarI	PflMI	PstI	PvuII
SauI							

Enzymes that do not cut:

AatII	AgeI	AseI	AvaI	BbrPI	BfrI	BglII	BsaBI
BsmI	BssHII	BstBI	BstXI	ClaI	DraI	DraIII	EagI
EcoRI	HindIII	HpaI	KpnI	MluI	NcoI	NdeI	NheI
NotI	NruI	NsiI	PmlI	PvuI	SacII	SalI	ScaI
SfiI	SmaI	SnaBI	SpeI	SspI	StuI	XbaI	XhoI

10075074-021302

